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PATENT ABSTRACTS OF JAPAN

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(21)Application number : 05-042470 (71)Applicant : SUMITOMO
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(54) OPTICAL FUNCTION DEVICE

(57)Abstract:

PURPOSE: To provide the optical function device which is low in loss steel in the case where it is optically coupled to other optical parts or the optical parts are mounted on its own body, by forming the part of a V-groove for holding and fixing an optical fiber collimator, which corresponds to a graded index type optical fiber, broader than the part corresponding to a single mode optical fiber.

CONSTITUTION: The part 2 of the V-groove for holding and fixing the optical fiber collimator 6, which corresponds to the graded index type optical fiber, is

formed broader than the part 3 corresponding to the single mode optical fiber 5. The V-groove is preferably formed by anisotropic etching. More specifically, window parts for the V-grooves varying in length and width are formed on an Si substrate 1 of a {100} face in the face direction by using the lithography technique to be used for the process for forming ordinary semiconductor ICs and thereafter, the V-grooves are formed by using an anisotropic etching method, more particularly anisotropic wet etching method which hardly dissolve the {111} face of the Si.

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